# The Economic Impact of Newly Created Jobs Ruth Beier Economist, Michigan Education Association March 10, 2009

Economic impact analysis is often used to estimate the community-wide effects of a change in economic activity such as the opening of a new business or the generation of new jobs. A multiplier is applied to the original stimulus to calculate the regional or statewide impact of the original stimulus.

For example, if a new business or government program results in newly created jobs, there is a direct impact on the newly employed, an indirect impact if the employer purchases materials and services in the region, and an ensuing impact from the new employees' spending, which in turn creates new jobs, income, etc.

Economic impact analysis can be based on an income multiplier (how much income is ultimately generated from \$1 in new income in the region) and/or an employment multiplier (how many jobs are ultimately created if one job is added in the region.)

Seminal empirical research studies on multipliers have found income multipliers ranging from 1.2 to 3.1 and employment multipliers ranging from 1.3 to 3.7, with an average income multiplier of 2.2 and an average employment multiplier of 2.3. (See Exhibit A on following page.)

# Exhibit $\mathbf{A}^{i}$

Region	Income Multiplier		
Washington State	3.1		
Washington State	2.8		
Nebraska	2.5		
Los Angeles	2.4		
St. Louis	2.2		
Nebraska	2.0		
Utah	1.8		
Detroit	1.4		
Boulder, Colorado	1,2		
Average	2.2		

Region	Employment Multiplier
Philadelphia	3.7
California	2.8
Washington State	2.7
New York-Philadelphia	2.1
Los Angeles- Long Beach	2.1
San Francisco-Oakland	2.1
Portsmouth, N.H.	1.8
Hawaii	1.3
Average	2.3

The following table estimates the income and employment impact in Michigan given different assumptions of new job creation. This table assumes an income multiplier of 2.2, an employment multiplier of 2.3 and an annual salary of \$35,000 for newly created jobs.

### Exhibit B

Assumed Number of New Jobs	Assumed Annual Salary	Estimated Ultimate Impact on Incomes in Michigan (2.2 multiplier)	Estimated Ultimate Impact on Employment in Michigan (2.3 multiplier)
8,000	\$35,000	\$616,000,000	18,400
12,000	\$35,000	\$924,000,000	27,600
16,000	\$35,000	\$1,232,000,000	36,800
20,000	\$35,000	\$1,540,000,000	46,000

#### Sources:

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## **ORIGINAL SFA TABLE**

From: March 9, 2009 SFA Memorandum RE: Further Discussion of MEA Retirement Proposal

Table on Page 3: "Impact of SB 255 on MPSERS -- 1.75% Multiplier"

•	Year					
	1	2	3	4	5	Total
Current Law Retirees	9,000	9,000	9,000	9,000	9,000	45,000
SB 255 Retirees	29,258	0	0	6,742	9,000	45,000
Add'i Retirees	20,258	11,258	2,258	0	0	33,774
Add'l Annual UAAL	\$300,000,000	\$300,000,000	\$300,000,000	\$300,000,000	\$300,000,000	1,500,000,000
Rate increase in UAAL <sup>1</sup>	3.1%	3.1%	3.1%	3.1%	3.1%	
OPEB	\$119,183,004	\$66,234,565	\$13,286,126	\$0	\$0	198,703,695
Total annual cost	\$419,183,004	\$366,234,565	\$313,286,126	\$300,000,000	\$300,000,000	1,698,703,695
Minus salary savings	\$666,782,206	\$370,556,437	\$74,330,667	\$0	\$0	
Net cost/(savings)	(\$247,599,202)	(\$4,321,872)	\$238,955,459	\$300,000,000	\$300,000,000	\$587,034,385

<sup>&</sup>lt;sup>2</sup> It appears that the SFA simply divided the present value of the capped cost (\$1.5 billion) by 5 years to determine the additional UAAL, and that the cost of that additional UAAL would increase the required retirement contribution by 3.1 percentage points.

# SFA TABLE WITH AMORTIZATION OVER 29 YEARS RATHER THAN 5 YEARS

			·	<del></del>		
			Year			
	1	2	3	4	5	Total
Current Law Retirees	9,000	9,000	9,000	9,000	9,000	45,000
SB 255 Retirees	29,258	0	0	6,742	9,000	45,000
Add'l Retirees	20,258	11,258	2,258	0	0	33,774
Add'l Annual UAAL 2	\$51,724,138		\$51,724,138	\$51,724,138	\$51,724,138	258,620,690
Rate increase in UAAL <sup>3</sup>	0.53%	0.53%	0.53%	0.53%	0.53%	
OPEB	\$119,183,004	\$66,234,565	\$13,286,126	\$0	\$0	198,703,695
Total annual cost	\$170,907,142	\$117,958,703	\$65,010,264	\$51,724,138	\$51,724,138	457,324,385
Minus salary savings	\$666,782,206	\$370,556,437	\$74,330,667	\$0	\$0	
Net cost/(savings)	(\$495,875,064)	(\$252,597,734)	(\$9,320,403)	\$51,724,138	\$51,724,138	(\$654,344,925)

<sup>&</sup>lt;sup>2</sup> This table divides the present value of the capped cost (\$1.5 billion) by 29 years rather than 5 years. (\$1.5 billion divided by 29 = \$51,724,138)

<sup>&</sup>lt;sup>3</sup> If a \$300,000,000 increase in the UAAL results in a MPSERS rate increase of 3.1 percentage points, a \$51,724,138 increase in the UAAL results in a rate increase of .53 percentage points.